

Daily Space Weather Summary (SUPARCO)

Wednesday, November 12, 2025, 03:35 PST



Radio Blackouts			Solar Radiation Storms			Geomagnetic Storms		
-24 Hr	Current	Predicted	-24 Hr	Current	Predicted	-24 Hr	Current	Predicted
R2 – R3	R0 / R1	R2 – R3	S3	S2	S0 / S1	G4	G2	G3

LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

Critical Frequency of F2 layer (foF2)	14.5 MHz
Virtual Height of F2 layer (h`F2)	350 km
Total Electron Content (TEC)	88 TECU

Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances

Distance (Km)	100	200	400	600	800	1000	1500	3000
MUF (MHz)	14.8	15.2	16.5	18.4	20.6	22.9	28.5	35.7
FOT (MHz)	12.6	12.9	14.0	15.6	17.5	19.5	24.2	30.3

Local HF conditions are normal as compared to the predicted monthly median MUF.

LOCAL GEOMAGNETIC CONDITIONS

K-index	6 (Storm)
Total Field (F) (Son/Isb)	45725/50720 nT

The local geomagnetic field is disturbed (Storm) at the moment.

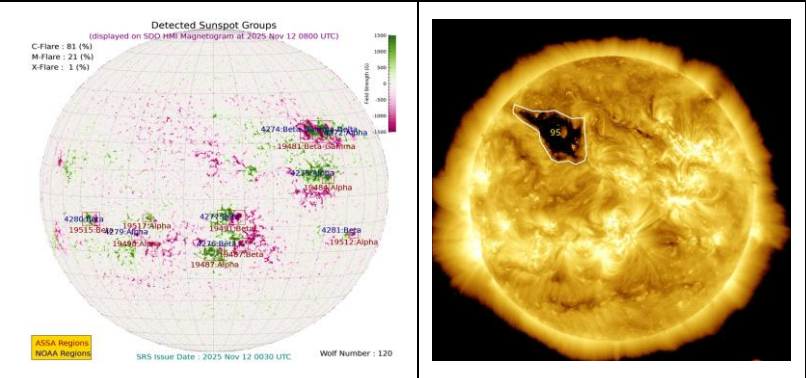
LATEST SOLAR CONDITIONS

Sunspot Number (SN)	131
Solar radio flux (F10.7)	168 sfu
Solar wind speed	714.9 km/s (varied in the past 24 hrs between 280 & 821 km/s)
Solar x-ray flares	C1.9 (max flare in the past 24 hrs (X5, 1004 UT)
Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)	+40.96 nT (varied in the past 12 hrs between +4.16 nT & +53.74 nT) -23.21 nT (varied in the past 12 hrs between -44.69 nT & +0.67 nT)

Solar conditions are at high levels with background X-ray flux at upper C-class level.

There is one active region AR4274 present on the Sun capable of producing strong M and X-class solar flares having chances of 47% and 9% respectively.

01 Coronal Hole (CH) is detected on the solar disk.



DISCUSSION:

Solar activity is expected to be at high levels. Multiple M/X-class solar flares, occurred from the regions mentioned above causing R1-R3 levels HF radio blackouts. HF operators may have experienced mild duration of blackout as well as loss of signals at frequencies between 3-30 MHz during day-lit hours. An X5.2-class solar flare occurred which produced CME (coronal mass ejection) and caused geomagnetic storm of G4 (Severe) level. G2 (Strong) level geomagnetic storm is undergoing. Moderate to slightly elevated levels of solar wind speed is expected to prevail due to ongoing geomagnetic storm as well as the arrival of CMEs (coronal mass ejection). Enhanced HF conditions are expected to be sustained.

Credits:

Solar conditions courtesy to SOHO, DSCOVR and GOES-16 missions.
NOAA SWPC is acknowledged for solar radio flux conditions.
Korean Space Weather Centre is acknowledged for solar disk and coronal hole images.

Sonmiani (SON): 25.2° N, 66.75° E
Islamabad (ISB): 33.7° N, 73.13° E

RSG SCALES

Radio Blackouts				
Minor	Moderate	Strong	Severe	Extreme
R1	R2	R3	R4	R5
Solar Radiation Storms				
Minor	Moderate	Strong	Severe	Extreme
S1	S2	S3	S4	S5
Geomagnetic Storms				
Minor	Moderate	Strong	Severe	Extreme
G1	G2	G3	G4	G5